FIG. 1

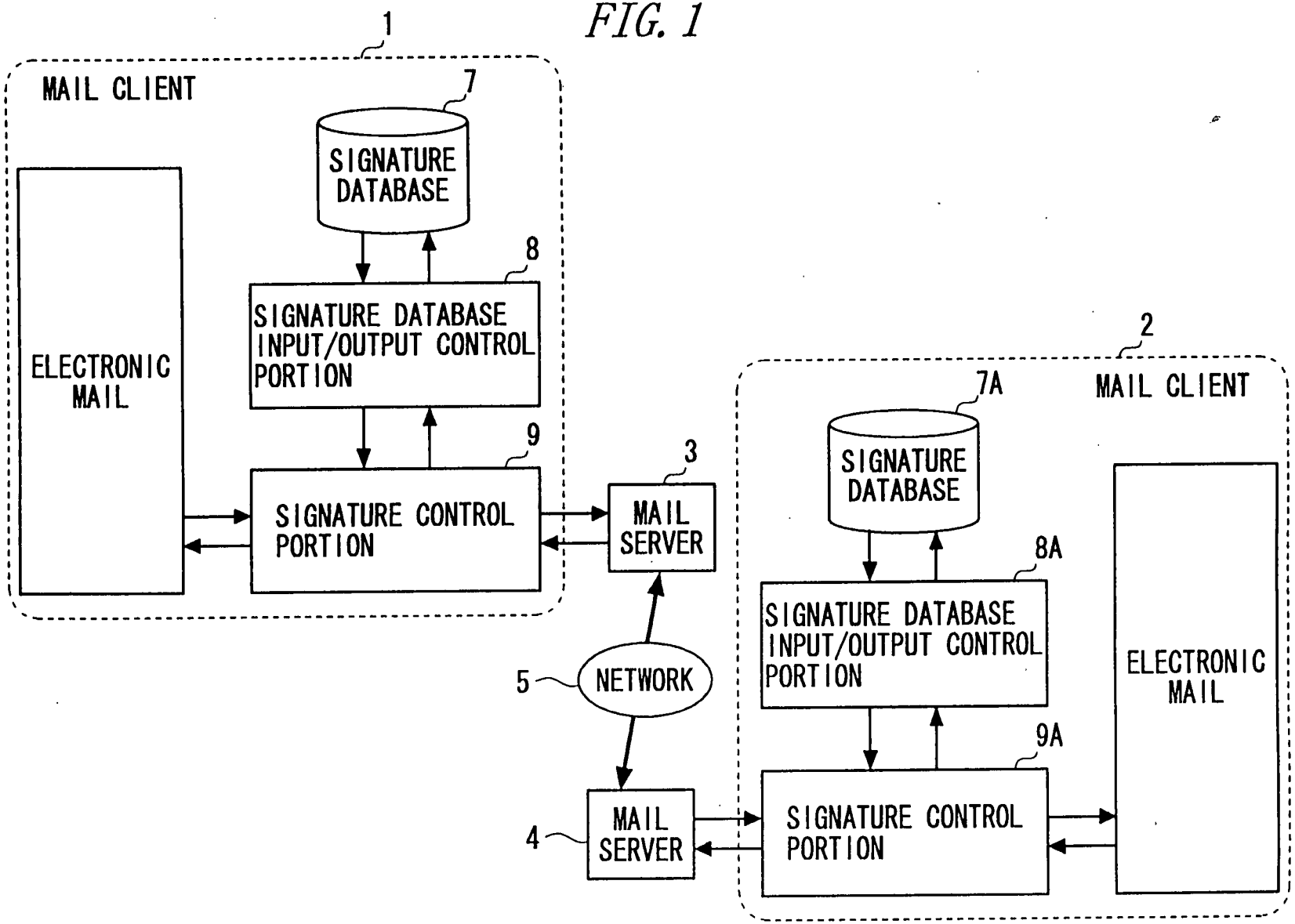

1
MAIL CLIENT
7
SIGNATURE DATABASE
8
SIGNATURE DATABASE INPUT/OUTPUT CONTROL PORTION
ELECTRONIC MAIL
9
SIGNATURE CONTROL PORTION
3
MAIL SERVER
5
NETWORK
4
MAIL SERVER
2
MAIL CLIENT
7A
SIGNATURE DATABASE
8A
SIGNATURE DATABASE INPUT/OUTPUT CONTROL PORTION
9A
SIGNATURE CONTROL PORTION
ELECTRONIC MAIL

FIG. 2

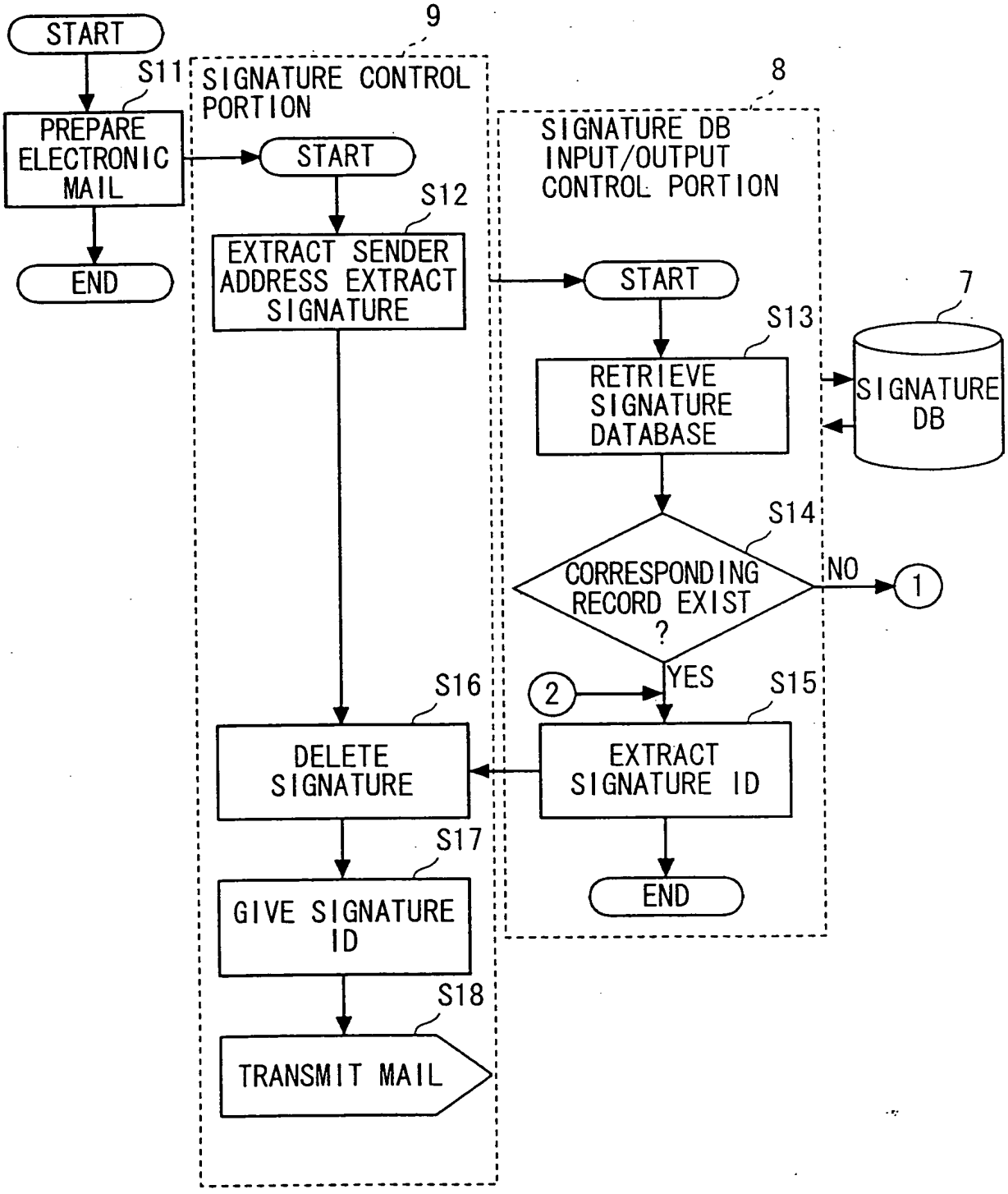

START
S11
PREPARE ELECTRONIC MAIL
END
9
SIGNATURE CONTROL PORTION
START
S12
EXTRACT SENDER ADDRESS EXTRACT SIGNATURE
8
SIGNATURE DB INPUT/OUTPUT CONTROL PORTION
START
S13
RETRIEVE SIGNATURE DATABASE
7
SIGNATURE DB
S14
CORRESPONDING RECORD EXIST ?
NO
1
YES
2
S15
EXTRACT SIGNATURE ID
END
S16
DELETE SIGNATURE
S17
GIVE SIGNATURE ID
S18
TRANSMIT MAIL

FIG. 3

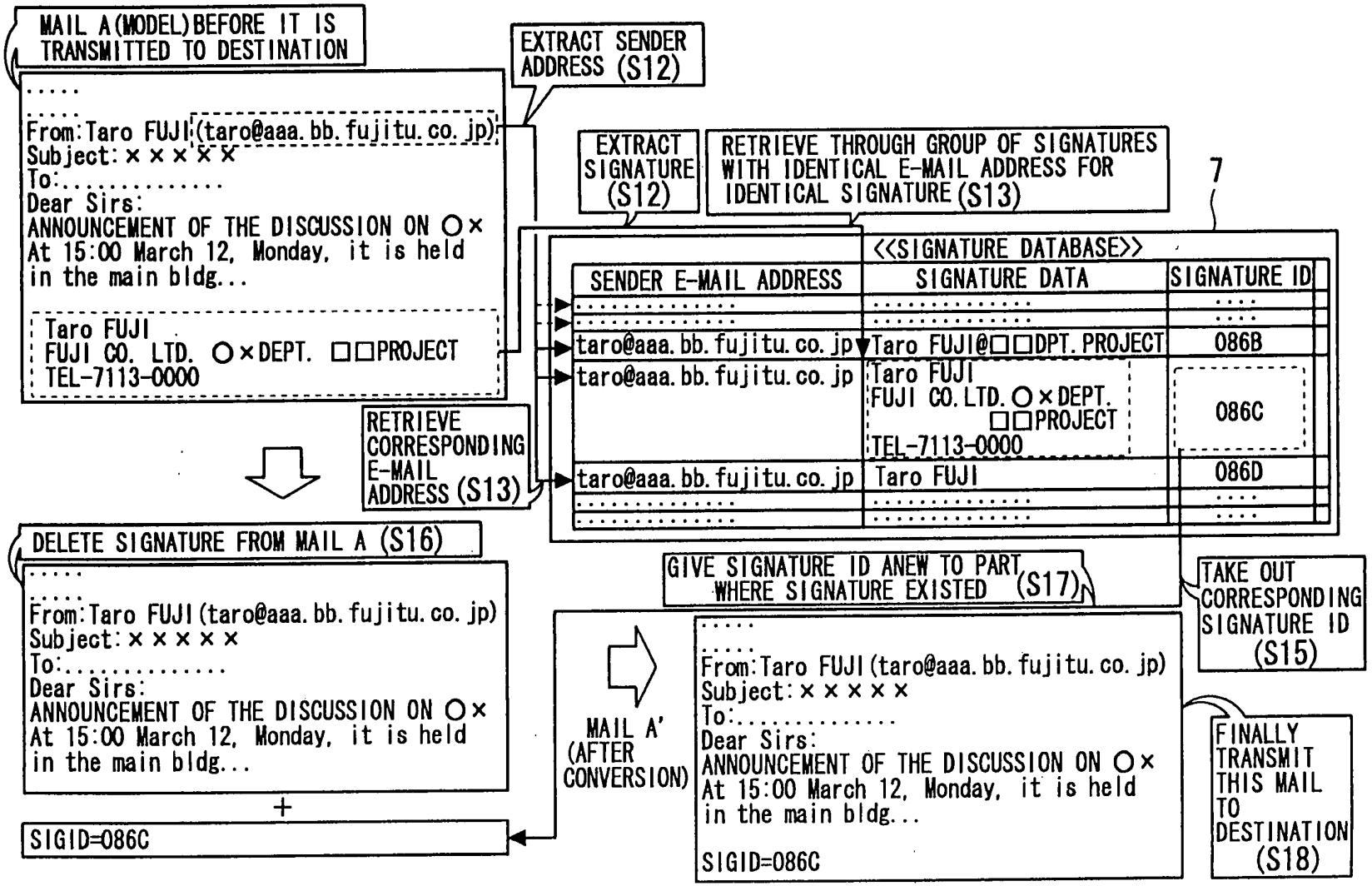

MAIL A(MODEL)BEFORE IT IS TRANSMITTED TO DESTINATION
.....
.....
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held
in the main bldg...
Taro FUJI
FUJI CO. LTD. ○×DEPT. □□PROJECT
TEL-7113-0000
EXTRACT SENDER ADDRESS (S12)
EXTRACT SIGNATURE (S12)
RETRIEVE THROUGH GROUP OF SIGNATURES WITH IDENTICAL E-MAIL ADDRESS FOR IDENTICAL SIGNATURE (S13)
7
<<SIGNATURE DATABASE>>
SENDER E-MAIL ADDRESS
SIGNATURE DATA
SIGNATURE ID
taro@aaa.bb.fujitu.co.jp
Taro FUJI@□□DPT. PROJECT
086B
taro@aaa.bb.fujitu.co.jp
Taro FUJI
FUJI CO.LTD.○×DEPT.
□□PROJECT
TEL-7113-0000
086C
taro@aaa.bb.fujitu.co.jp
Taro FUJI
086D
RETRIEVE CORRESPONDING E-MAIL ADDRESS (S13)
DELETE SIGNATURE FROM MAIL A (S16)
.....
.....
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held
in the main bldg...
+
SIGID=086C
GIVE SIGNATURE ID ANEW TO PART WHERE SIGNATURE EXISTED (S17)
TAKE OUT CORRESPONDING SIGNATURE ID (S15)
MAIL A' (AFTER CONVERSION)
.....
.....
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held
in the main bldg...
SIGID=086C
FINALLY TRANSMIT THIS MAIL TO DESTINATION (S18)

FIG. 4

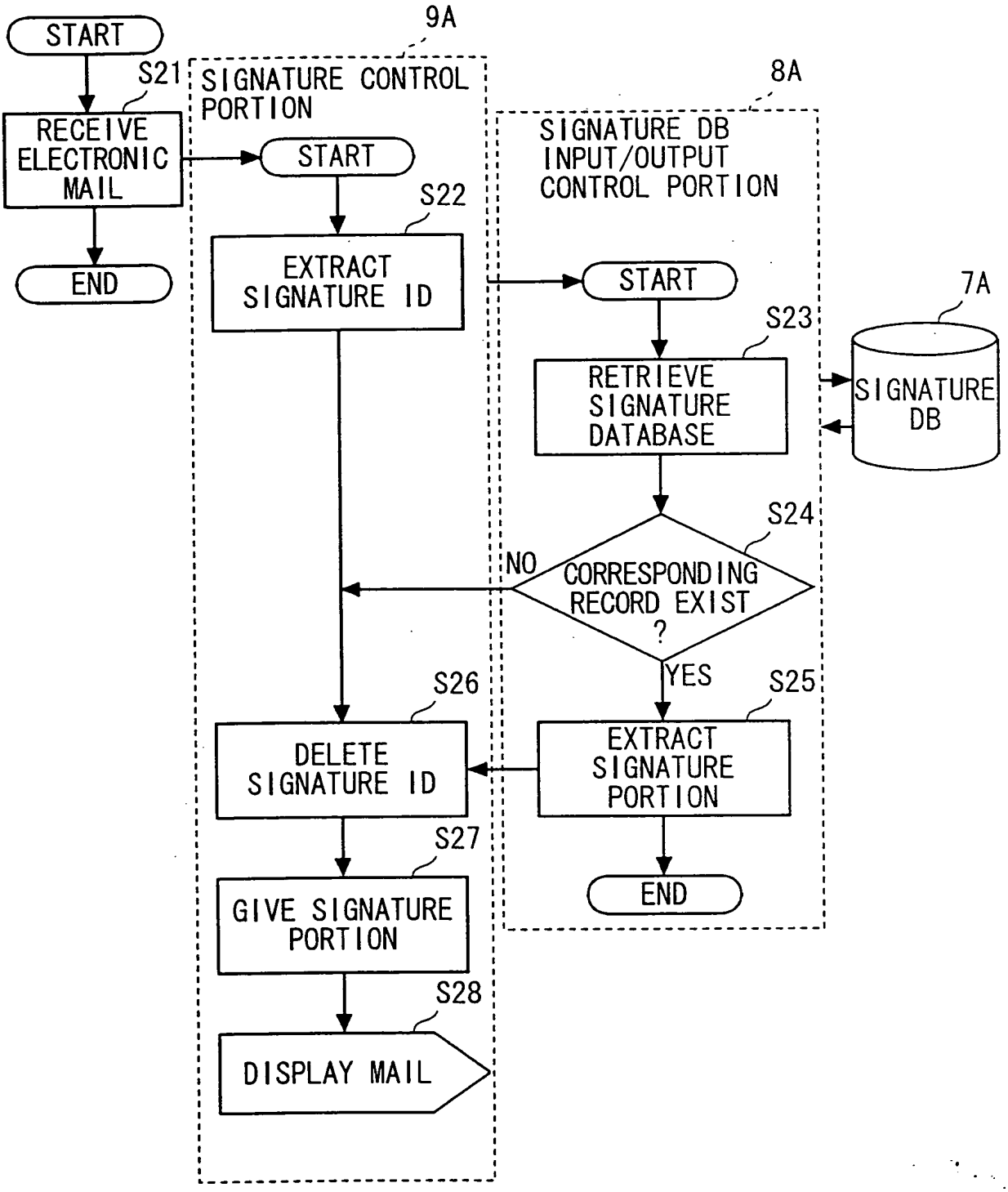

START
9A
SIGNATURE CONTROL PORTION
S21
RECEIVE ELECTRONIC MAIL
END
START
S22
EXTRACT SIGNATURE ID
8A
SIGNATURE DB INPUT/OUTPUT CONTROL PORTION
START
S23
RETRIEVE SIGNATURE DATABASE
7A
SIGNATURE DB
S24
NO
CORRESPONDING RECORD EXIST ?
YES
S25
EXTRACT SIGNATURE PORTION
END
S26
DELETE SIGNATURE ID
S27
GIVE SIGNATURE PORTION
S28
DISPLAY MAIL

FIG. 5

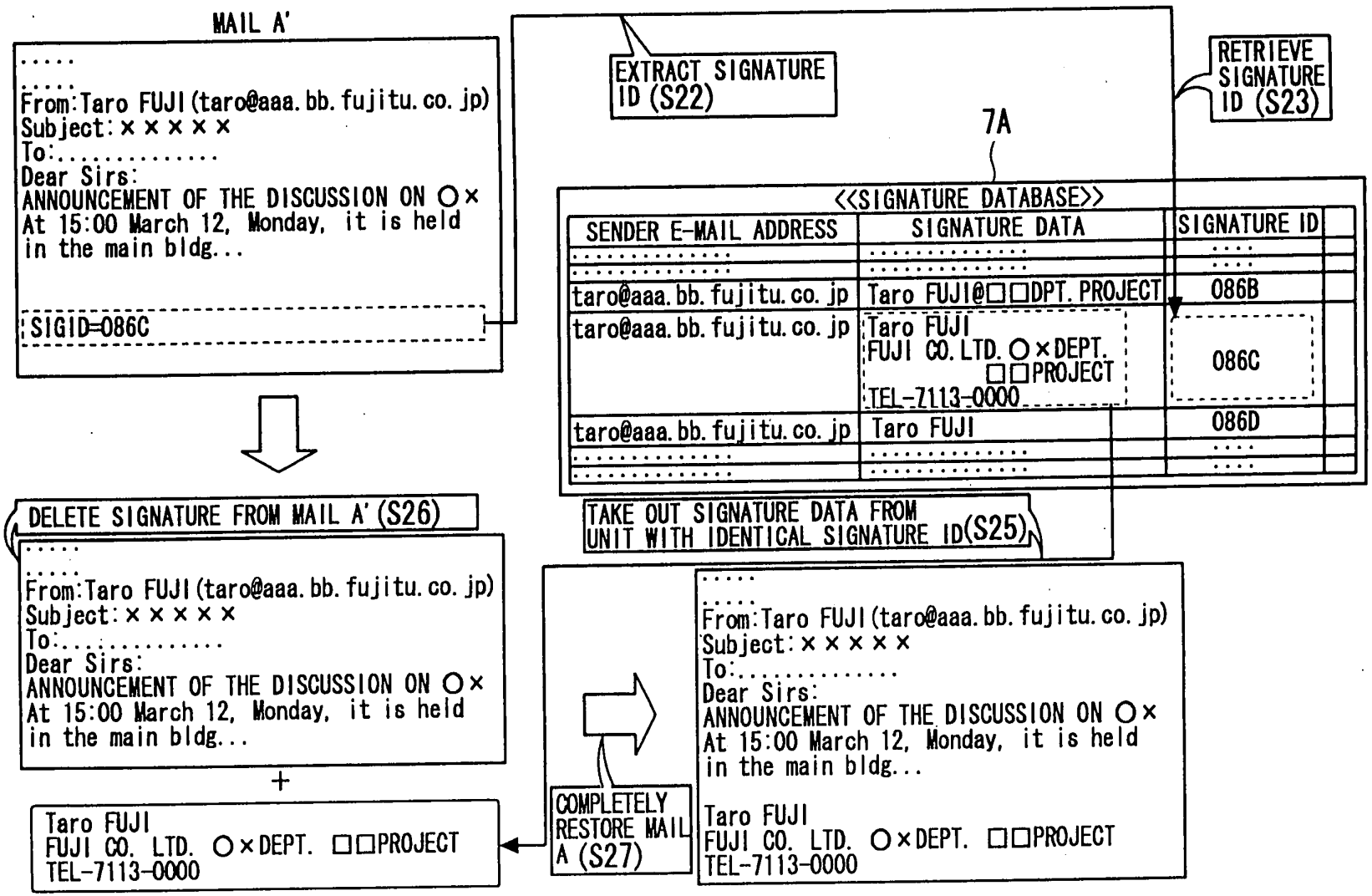

MAIL A'
.....
.....
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held
in the main bldg...
SIGID=086C
EXTRACT SIGNATURE ID (S22)
RETRIEVE SIGNATURE ID (S23)
7A
<<SIGNATURE DATABASE>>
SENDER E-MAIL ADDRESS
SIGNATURE DATA
SIGNATURE ID
taro@aaa.bb.fujitu.co.jp
Taro FUJI@□□DPT.PROJECT
086B
taro@aaa.bb.fujitu.co.jp
Taro FUJI
FUJI CO.LTD.○×DEPT.
□□PROJECT
TEL-7113-0000
086C
taro@aaa.bb.fujitu.co.jp
Taro FUJI
086D
TAKE OUT SIGNATURE DATA FROM UNIT WITH IDENTICAL SIGNATURE ID(S25)
DELETE SIGNATURE FROM MAIL A' (S26)
.....
.....
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held
in the main bldg...
+
Taro FUJI
FUJI CO. LTD. ○×DEPT. □□PROJECT
TEL-7113-0000
COMPLETELY RESTORE MAIL A (S27)
.....
.....
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held
in the main bldg...
Taro FUJI
FUJI CO. LTD. ○×DEPT. □□PROJECT
TEL-7113-0000

FIG. 6

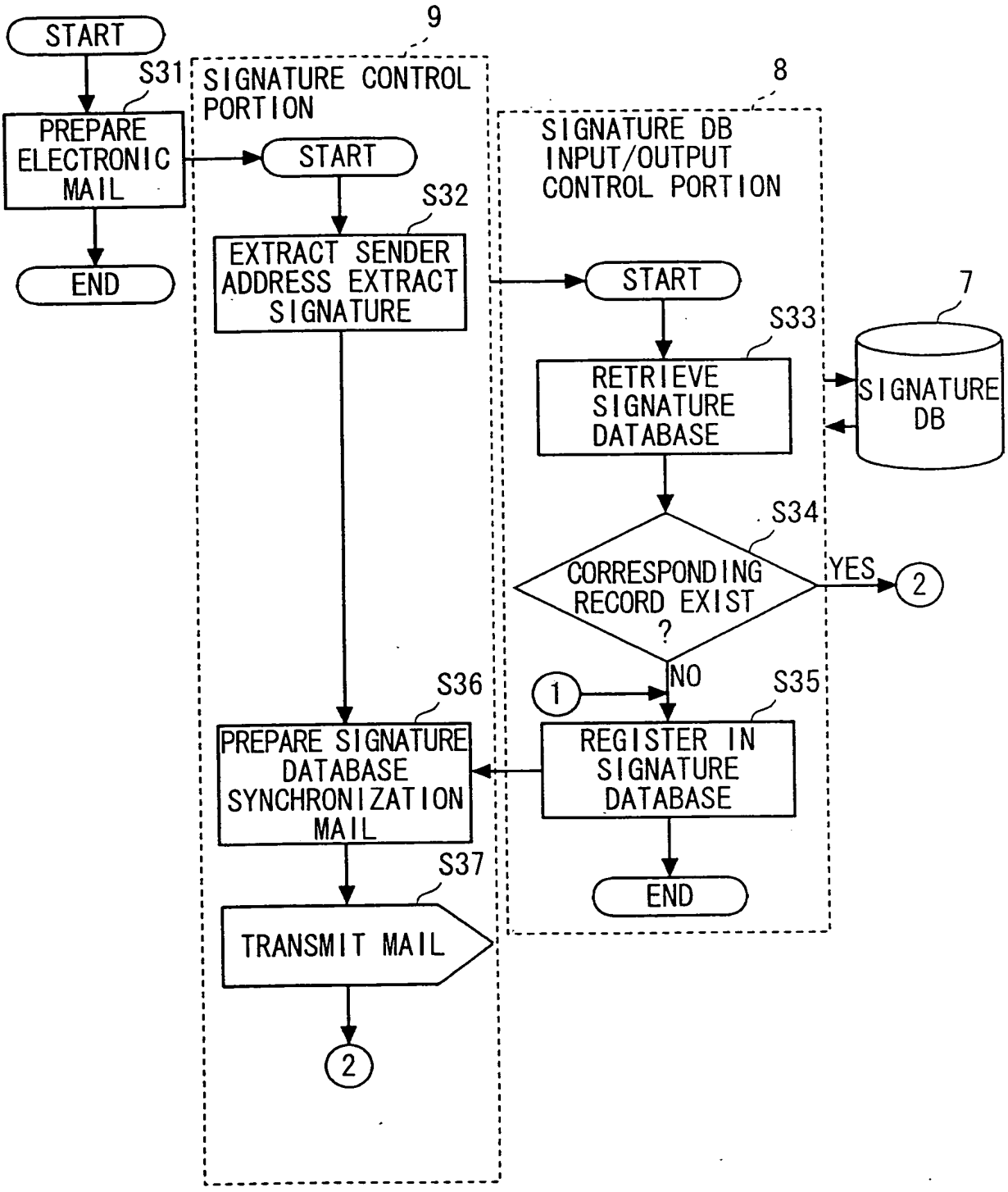

START
S31
PREPARE ELECTRONIC MAIL
END
9
SIGNATURE CONTROL PORTION
START
S32
EXTRACT SENDER ADDRESS EXTRACT SIGNATURE
8
SIGNATURE DB INPUT/OUTPUT CONTROL PORTION
START
7
S33
RETRIEVE SIGNATURE DATABASE
SIGNATURE DB
S34
CORRESPONDING RECORD EXIST ?
YES
2
NO
1
S35
REGISTER IN SIGNATURE DATABASE
END
S36
PREPARE SIGNATURE DATABASE SYNCHRONIZATION MAIL
S37
TRANSMIT MAIL
2

FIG. 7

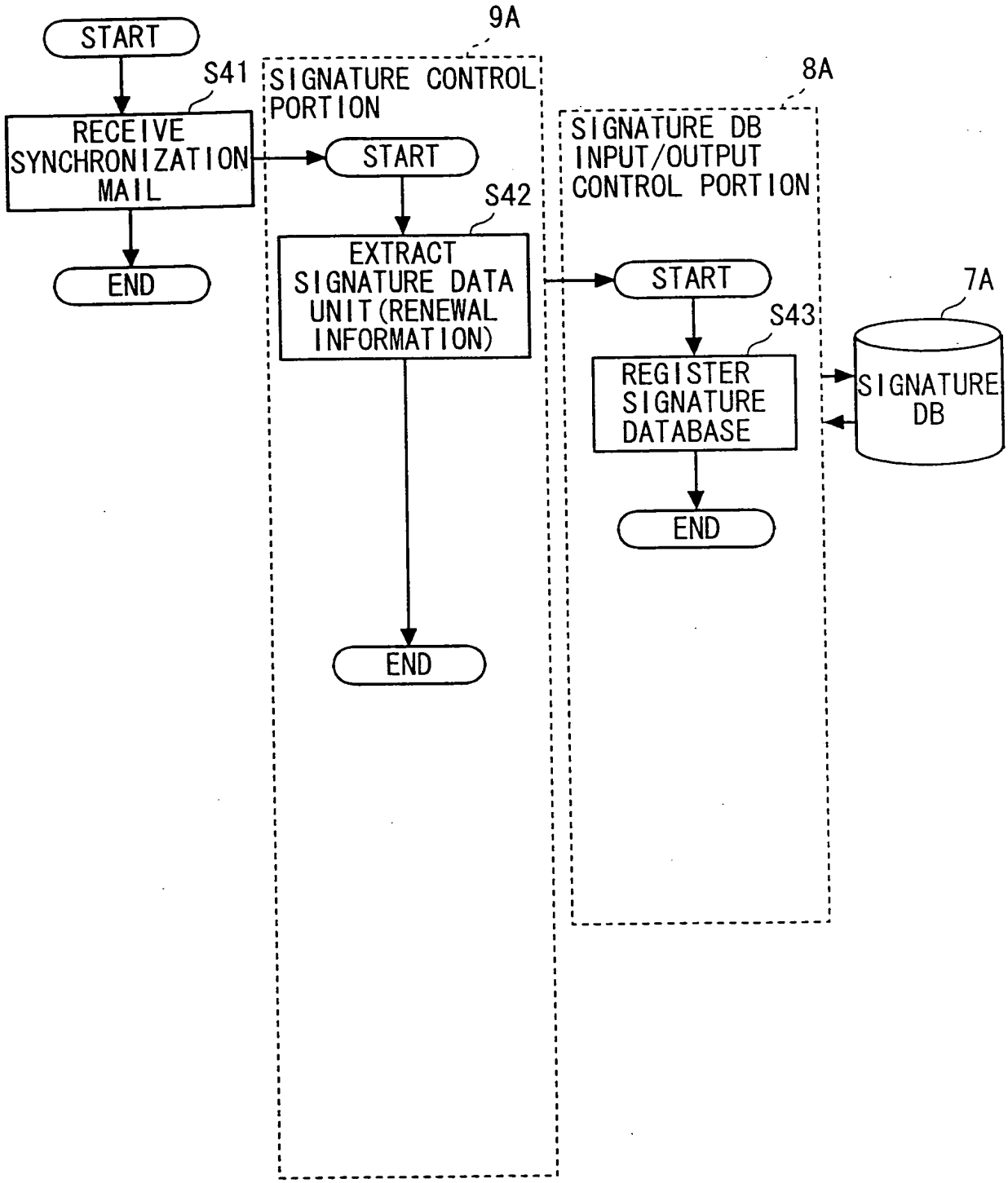

START
S41
RECEIVE SYNCHRONIZATION MAIL
END
9A
SIGNATURE CONTROL PORTION
START
S42
EXTRACT SIGNATURE DATA UNIT (RENEWAL INFORMATION)
END
8A
SIGNATURE DB INPUT/OUTPUT CONTROL PORTION
START
S43
REGISTER SIGNATURE DATABASE
END
7A
SIGNATURE DB

FIG. 8

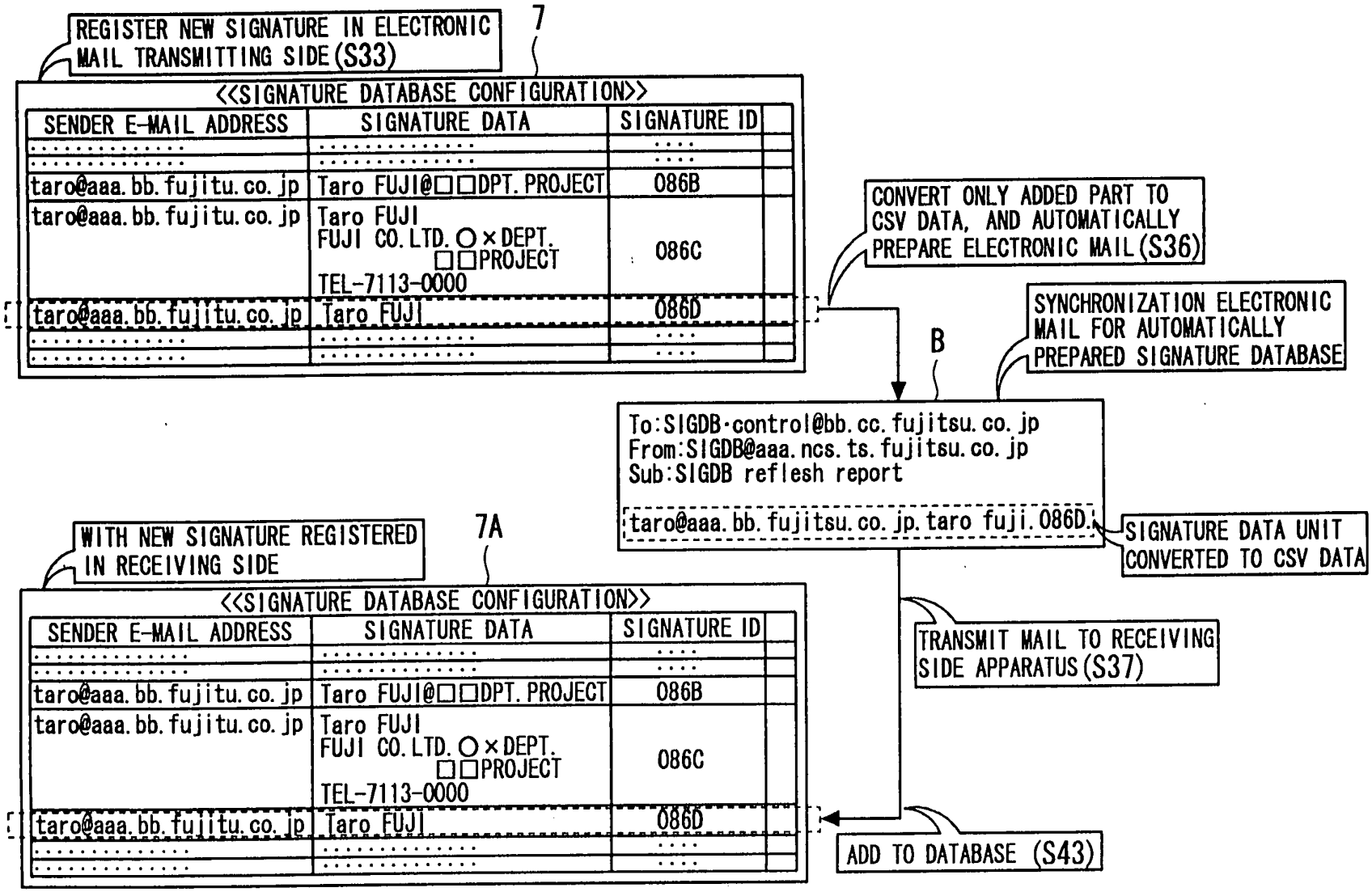

REGISTER NEW SIGNATURE IN ELECTRONIC MAIL TRANSMITTING SIDE (S33)
7
<<SIGNATURE DATABASE CONFIGURATION>>
SENDER E-MAIL ADDRESS
SIGNATURE DATA
SIGNATURE ID
taro@aaa.bb.fujitu.co.jp
Taro FUJI@□□DPT.PROJECT
086B
taro@aaa.bb.fujitu.co.jp
Taro FUJI
FUJI CO.LTD.○×DEPT.
□□PROJECT
TEL-7113-0000
086C
taro@aaa.bb.fujitu.co.jp
Taro FUJI
086D
CONVERT ONLY ADDED PART TO CSV DATA, AND AUTOMATICALLY PREPARE ELECTRONIC MAIL (S36)
SYNCHRONIZATION ELECTRONIC MAIL FOR AUTOMATICALLY PREPARED SIGNATURE DATABASE
B
To:SIGDB-control@bb.cc.fujitsu.co.jp
From:SIGDB@aaa.ncs.ts.fujitsu.co.jp
Sub:SIGDB reflesh report
taro@aaa.bb.fujitsu.co.jp.taro fuji.086D.
SIGNATURE DATA UNIT CONVERTED TO CSV DATA
WITH NEW SIGNATURE REGISTERED IN RECEIVING SIDE
7A
<<SIGNATURE DATABASE CONFIGURATION>>
SENDER E-MAIL ADDRESS
SIGNATURE DATA
SIGNATURE ID
taro@aaa.bb.fujitu.co.jp
Taro FUJI@□□DPT.PROJECT
086B
taro@aaa.bb.fujitu.co.jp
Taro FUJI
FUJI CO.LTD.○×DEPT.
□□PROJECT
TEL-7113-0000
086C
taro@aaa.bb.fujitu.co.jp
Taro FUJI
086D
TRANSMIT MAIL TO RECEIVING SIDE APPARATUS (S37)
ADD TO DATABASE (S43)

FIG. 9

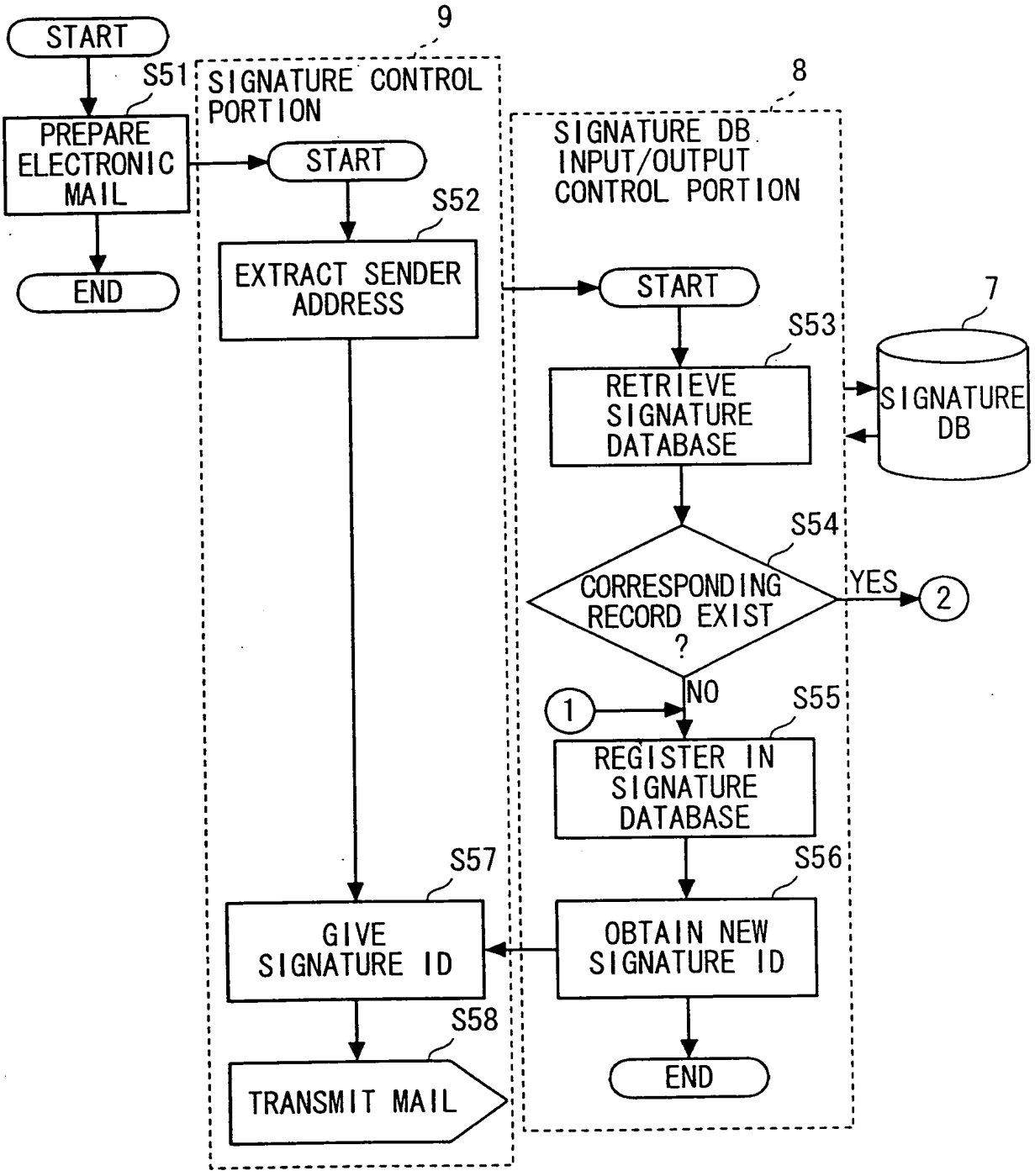

START
S51
PREPARE ELECTRONIC MAIL
END
9
SIGNATURE CONTROL PORTION
START
S52
EXTRACT SENDER ADDRESS
8
SIGNATURE DB INPUT/OUTPUT CONTROL PORTION
START
S53
RETRIEVE SIGNATURE DATABASE
7
SIGNATURE DB
S54
CORRESPONDING RECORD EXIST ?
YES
2
NO
1
S55
REGISTER IN SIGNATURE DATABASE
S56
OBTAIN NEW SIGNATURE ID
END
S57
GIVE SIGNATURE ID
S58
TRANSMIT MAIL

FIG. 10

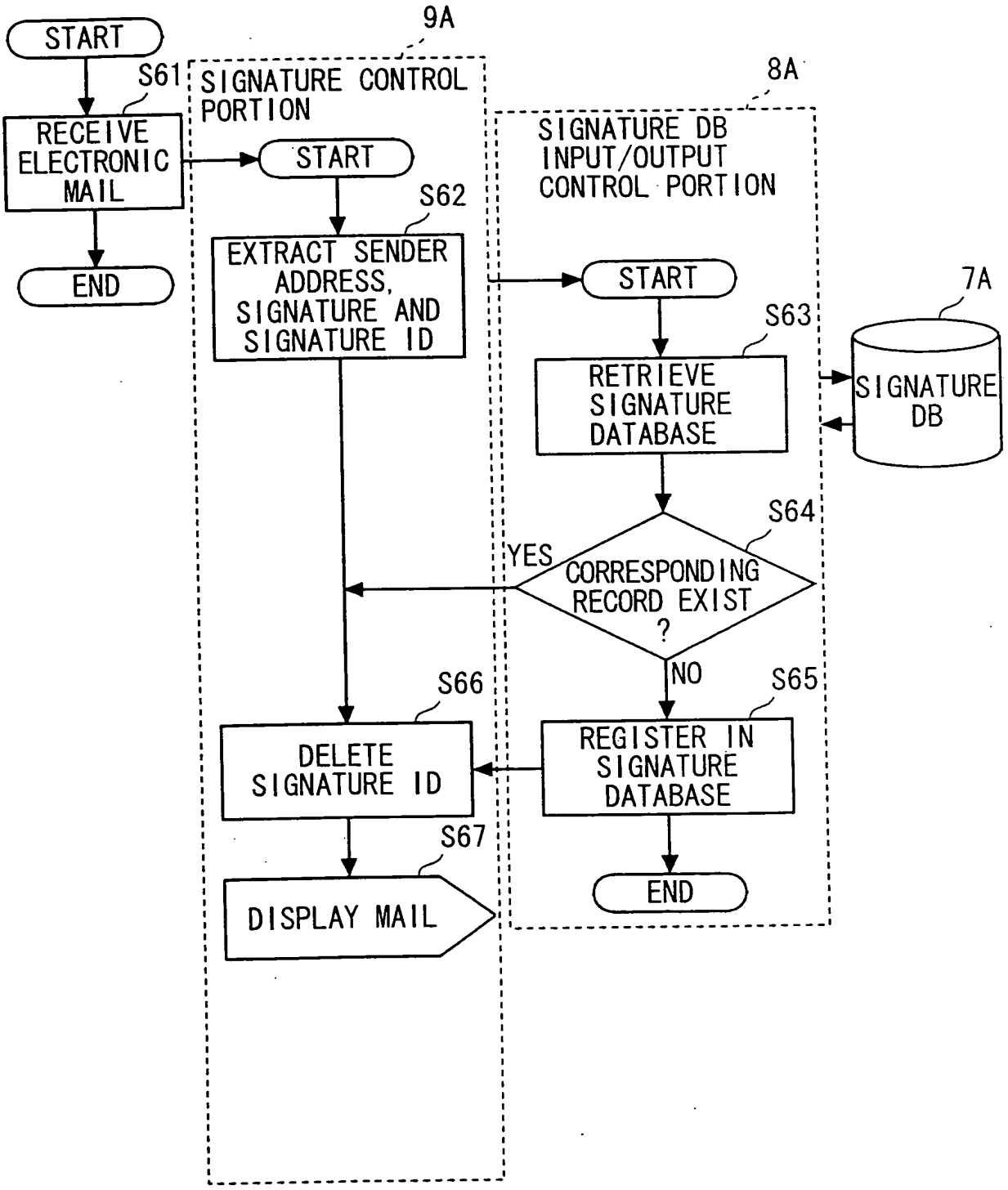

START
S61
RECEIVE ELECTRONIC MAIL
END
9A
SIGNATURE CONTROL PORTION
START
S62
EXTRACT SENDER ADDRESS, SIGNATURE AND SIGNATURE ID
8A
SIGNATURE DB INPUT/OUTPUT CONTROL PORTION
START
S63
RETRIEVE SIGNATURE DATABASE
7A
SIGNATURE DB
S64
YES
CORRESPONDING RECORD EXIST ?
NO
S65
REGISTER IN SIGNATURE DATABASE
END
S66
DELETE SIGNATURE ID
S67
DISPLAY MAIL

FIG. 11

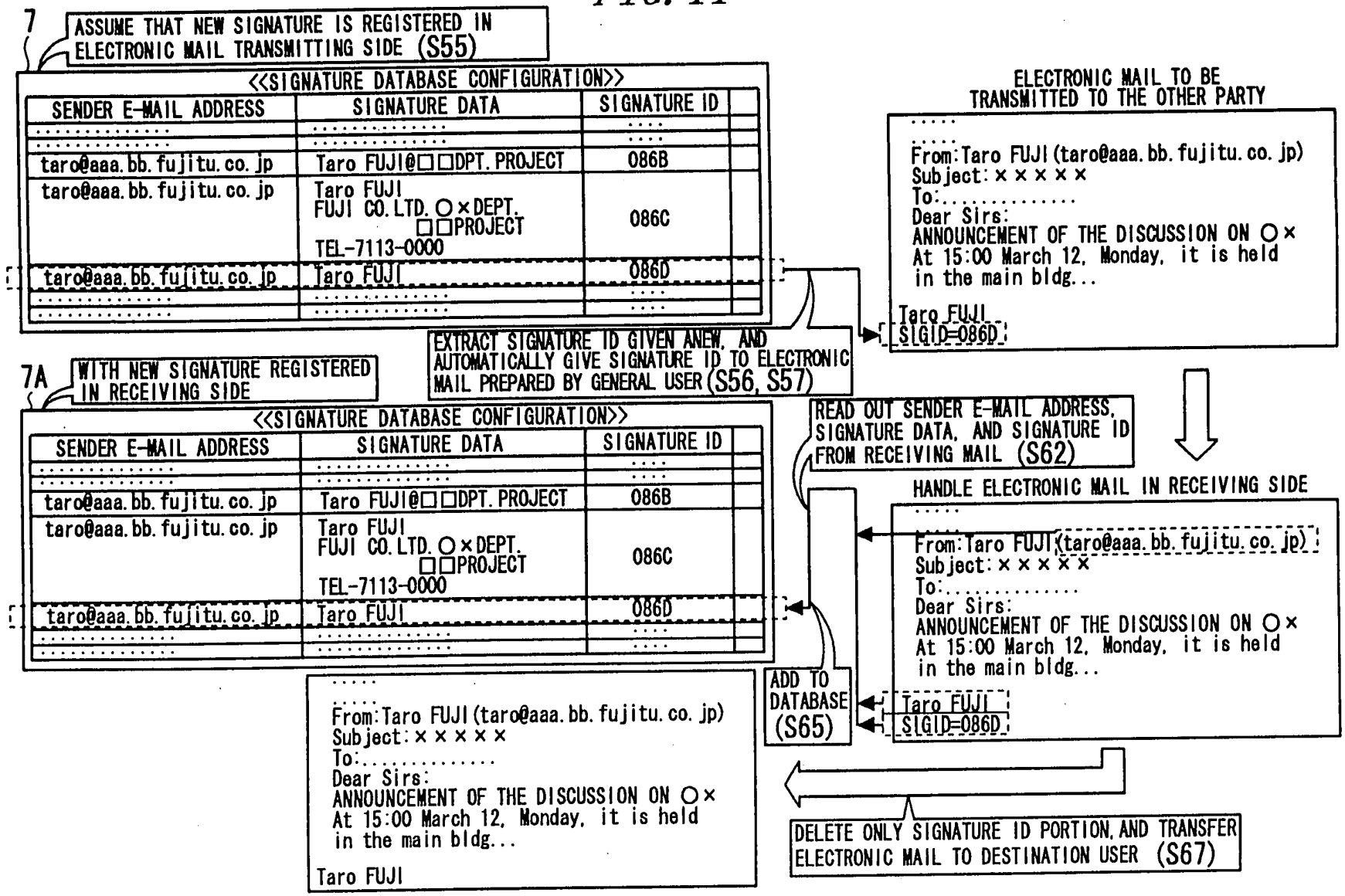

7
ASSUME THAT NEW SIGNATURE IS REGISTERED IN ELECTRONIC MAIL TRANSMITTING SIDE (S55)
<<SIGNATURE DATABASE CONFIGURATION>>
SENDER E-MAIL ADDRESS
SIGNATURE DATA
SIGNATURE ID
taro@aaa.bb.fujitu.co.jp
Taro FUJI@□□DPT.PROJECT
086B
taro@aaa.bb.fujitu.co.jp
Taro FUJI
FUJI CO.LTD. ○×DEPT.
□□PROJECT
TEL-7113-0000
086C
taro@aaa.bb.fujitu.co.jp
Taro FUJI
086D
ELECTRONIC MAIL TO BE TRANSMITTED TO THE OTHER PARTY
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held in the main bldg...
Taro FUJI
SIGID=086D
EXTRACT SIGNATURE ID GIVEN ANEW, AND AUTOMATICALLY GIVE SIGNATURE ID TO ELECTRONIC MAIL PREPARED BY GENERAL USER (S56, S57)
7A
WITH NEW SIGNATURE REGISTERED IN RECEIVING SIDE
<<SIGNATURE DATABASE CONFIGURATION>>
SENDER E-MAIL ADDRESS
SIGNATURE DATA
SIGNATURE ID
taro@aaa.bb.fujitu.co.jp
Taro FUJI@□□DPT.PROJECT
086B
taro@aaa.bb.fujitu.co.jp
Taro FUJI
FUJI CO.LTD. ○×DEPT.
□□PROJECT
TEL-7113-0000
086C
taro@aaa.bb.fujitu.co.jp
Taro FUJI
086D
READ OUT SENDER E-MAIL ADDRESS, SIGNATURE DATA, AND SIGNATURE ID FROM RECEIVING MAIL (S62)
HANDLE ELECTRONIC MAIL IN RECEIVING SIDE
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held in the main bldg...
Taro FUJI
SIGID=086D
ADD TO DATABASE (S65)
From:Taro FUJI(taro@aaa.bb.fujitu.co.jp)
Subject:×××××
To:.....
Dear Sirs:
ANNOUNCEMENT OF THE DISCUSSION ON ○×
At 15:00 March 12, Monday, it is held in the main bldg...
Taro FUJI
DELETE ONLY SIGNATURE ID PORTION, AND TRANSFER ELECTRONIC MAIL TO DESTINATION USER (S67)

FIG. 12

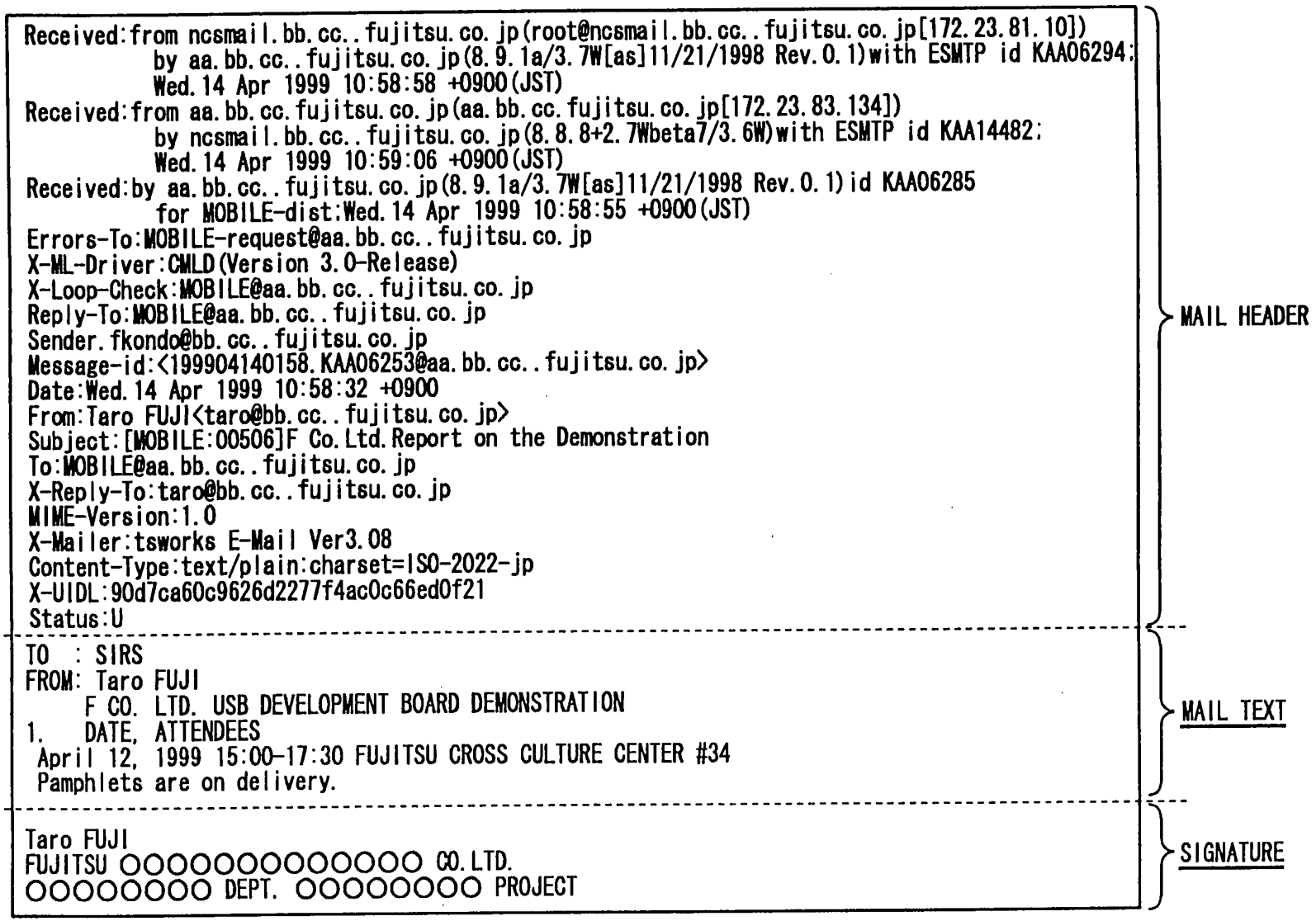

Received:from ncsmail.bb.cc..fujitsu.co.jp(root@ncsmail.bb.cc..fujitsu.co.jp[172.23.81.10])
by aa.bb.cc..fujitsu.co.jp(8.9.1a/3.7W[as]11/21/1998 Rev.0.1)with ESMTP id KAA06294;
Wed.14 Apr 1999 10:58:58 +0900(JST)
Received:from aa.bb.cc.fujitsu.co.jp(aa.bb.cc.fujitsu.co.jp[172.23.83.134])
by ncsmail.bb.cc..fujitsu.co.jp(8.8.8+2.7Wbeta7/3.6W)with ESMTP id KAA14482;
Wed.14 Apr 1999 10:59:06 +0900(JST)
Received:by aa.bb.cc..fujitsu.co.jp(8.9.1a/3.7W[as]11/21/1998 Rev.0.1)id KAA06285
for MOBILE-dist;Wed.14 Apr 1999 10:58:55 +0900(JST)
Errors-To:MOBILE-request@aa.bb.cc..fujitsu.co.jp
X-ML-Driver:CMLD(Version 3.0-Release)
X-Loop-Check:MOBILE@aa.bb.cc..fujitsu.co.jp
Reply-To:MOBILE@aa.bb.cc..fujitsu.co.jp
Sender.fkondo@bb.cc..fujitsu.co.jp
Message-id:<199904140158.KAA06253@aa.bb.cc..fujitsu.co.jp>
Date:Wed.14 Apr 1999 10:58:32 +0900
From:Taro FUJI<taro@bb.cc..fujitsu.co.jp>
Subject:[MOBILE:00506]F Co.Ltd.Report on the Demonstration
To:MOBILE@aa.bb.cc..fujitsu.co.jp
X-Reply-To:taro@bb.cc..fujitsu.co.jp
MIME-Version:1.0
X-Mailer:tsworks E-Mail Ver3.08
Content-Type:text/plain:charset=ISO-2022-jp
X-UIDL:90d7ca60c9626d2277f4ac0c66ed0f21
Status:U
MAIL HEADER
TO : SIRS
FROM: Taro FUJI
F CO. LTD. USB DEVELOPMENT BOARD DEMONSTRATION
1. DATE, ATTENDEES
April 12, 1999 15:00-17:30 FUJITSU CROSS CULTURE CENTER #34
Pamphlets are on delivery.
MAIL TEXT
Taro FUJI
FUJITSU OOOOOOOOOOOOO CO.LTD.
OOOOOOOO DEPT. OOOOOOOO PROJECT
SIGNATURE

FIG. 13

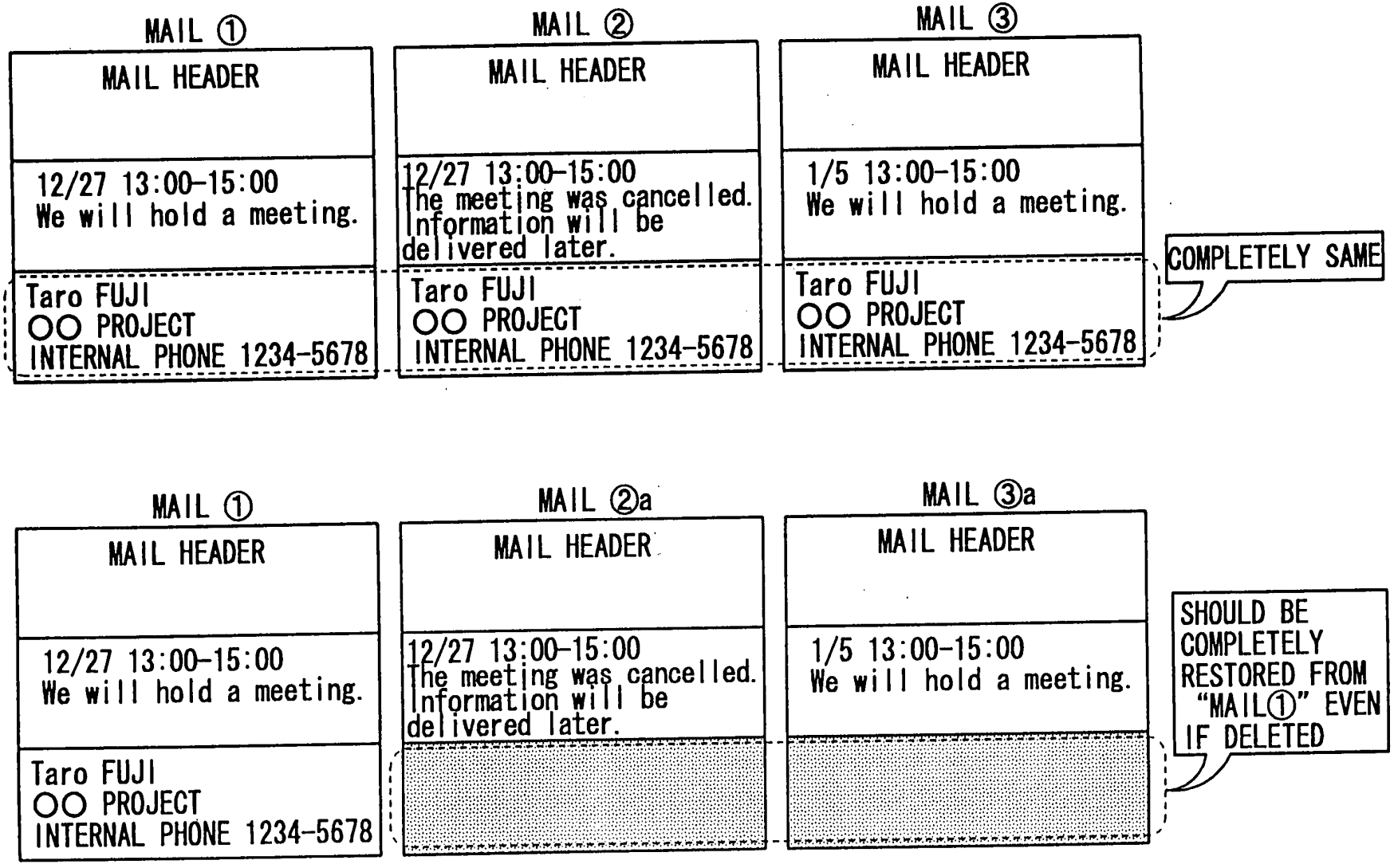

MAIL ①
MAIL HEADER
12/27 13:00-15:00
We will hold a meeting.
Taro FUJI
○○ PROJECT
INTERNAL PHONE 1234-5678
MAIL ②
MAIL HEADER
12/27 13:00-15:00
The meeting was cancelled.
Information will be
delivered later.
Taro FUJI
○○ PROJECT
INTERNAL PHONE 1234-5678
MAIL ③
MAIL HEADER
1/5 13:00-15:00
We will hold a meeting.
Taro FUJI
○○ PROJECT
INTERNAL PHONE 1234-5678
COMPLETELY SAME
MAIL ①
MAIL HEADER
12/27 13:00-15:00
We will hold a meeting.
Taro FUJI
○○ PROJECT
INTERNAL PHONE 1234-5678
MAIL ②a
MAIL HEADER
12/27 13:00-15:00
The meeting was cancelled.
Information will be
delivered later.
MAIL ③a
MAIL HEADER
1/5 13:00-15:00
We will hold a meeting.
SHOULD BE
COMPLETELY
RESTORED FROM
"MAIL①" EVEN
IF DELETED

FIG. 14

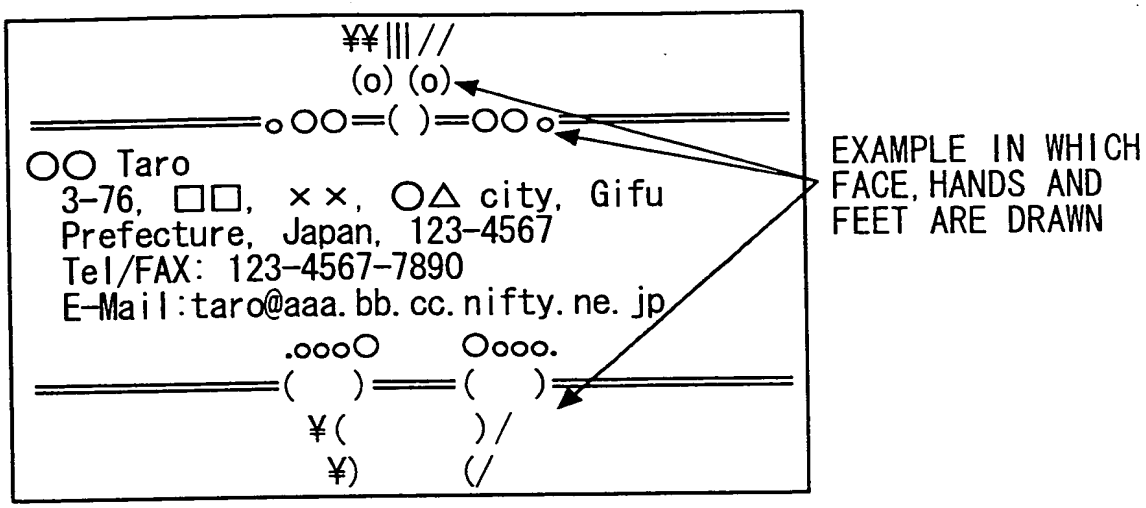
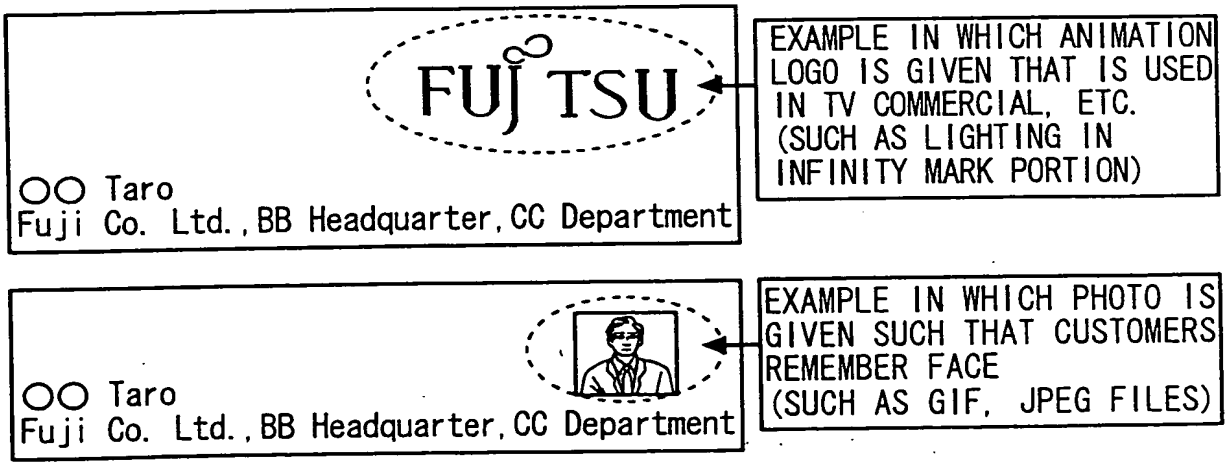

¥¥|||//
(o) (o)
OO Taro
3-76, □□, ××, O△ city, Gifu
Prefecture, Japan, 123-4567
Tel/FAX: 123-4567-7890
E-Mail:taro@aaa.bb.cc.nifty.ne.jp
EXAMPLE IN WHICH FACE, HANDS AND FEET ARE DRAWN

FIG. 15


FUJITSU
OO Taro
Fuji Co. Ltd., BB Headquarter, CC Department
EXAMPLE IN WHICH ANIMATION LOGO IS GIVEN THAT IS USED IN TV COMMERCIAL, ETC. (SUCH AS LIGHTING IN INFINITY MARK PORTION)
OO Taro
Fuji Co. Ltd., BB Headquarter, CC Department
EXAMPLE IN WHICH PHOTO IS GIVEN SUCH THAT CUSTOMERS REMEMBER FACE (SUCH AS GIF, JPEG FILES)